**From:** "Tom Carpenter" <tomc@hanfordchallenge.org>
**To:** <andrewt@dnfsb.gov>
**CC:** '"Rick Schapira"' <RICKS@DNFSB.GOV>
**Date:** 7/12/2011 5:07 PM
**Subject:** Hanford Challenge comments
**Attachments:** 2011 07.12 Comments of HC on DNFSB Safety Culture Recommendations Final.pdf ; 2008 02.19 Ltr to NRC Silva.pdf

July 12, 2011

Andrew L. Thibadeau

Defense Nuclear Facilities Safety Board

625 Indiana Avenue, NW.

Suite 700

Washington, DC 20004-2901

Dear Mr. Thibadeau,

Attached please the comments of Hanford Challenge in response to the June 20, 2011 Federal Register notice announcing the public comment period for the Defense Nuclear Facilities Safety Board's letter with Recommendations to the Secretary of Energy on the issue of safety culture at Hanford's Waste Treatment Plant. Also attached please find an attachment to the letter - a copy of a letter sent to the Nuclear Regulatory Commission - that was referenced in our comment. All other citations were hyperlinked and/or footnoted.

Thank you for considering these comments.

Sincerely yours,

Tom Carpenter, Executive Director

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# Hanford Challenge Comments

## *Re: Defense Nuclear Facilities Safety Board Recommendations on Safety Culture*

### July 12, 2011

On June 20, 2011, the Defense Nuclear Facilities Safety Board (DNFSB, Board) published a notice in the Federal Register setting forth a comment period of thirty days, until July 20, 2011, on the issuance of the Board's June 9, 2011 letter to the Secretary of Energy setting forth recommendations to address safety culture issues identified at the Hanford Waste Treatment Plant.

This series of comments is submitted for the record in response to the Federal Register notice. Thank you for considering our comments.

Hanford Challenge is a non-profit organization advocating for a safe and protective cleanup of the Hanford nuclear site. Since the late 1990's Hanford Challenge[1] has been tracking the design and construction of the Waste Treatment Plant (WTP), which will be performing critical work to contain and stabilize Hanford's high-level nuclear waste in glass. The safe containment of this waste is essential in order to protect the Columbia River and future generations from these long-lived contaminants. We believe that a robust safety culture, where employees are encouraged and supported for raising concerns that may compromise the mission of the Waste Treatment Plant, is paramount to ensuring the facility does its job as intended.

From the early stages, the WTP project has been plagued by cost-overruns, missed milestones and safety culture concerns. In July 2010, the most egregious safety culture violation occurred in the case of Dr. Walter Tamosaitis, then the Manager for Research and Technology, a Ph.D. engineer with 42 years of experience, who was terminated for highlighting unresolved technical issues at the WTP. His termination from his position at the WTP by Department of Energy (DOE) contractors, Bechtel National, Inc. and URS, sent a strong message to WTP employees that dissent would not be tolerated. This led to an investigation by the Board into said concerns and subsequently the issuance of a letter recommending the DOE implement a series of safety culture improvements.

Hanford Challenge has been investigating and reporting on the safety culture at Hanford and the Waste Treatment Plant for the past decade. Recently, we have been assisting Dr. Tamosaitis since he was referred to our organization in July 2010 by the DOE Employee Concerns Program. Hanford Challenge strongly supports the recommendations outlined in the letter issued by the DNFSB on June 9, 2011. The following comments describe:

- Background on the DNFSB recommendations and the DOE's response;
- The history of a broken safety culture and the raising of concerns at Hanford's Waste Treatment Plant;

[1] Hanford Challenge results from the Nuclear Oversight Campaign of the Government Accountability Project. HC became independent in January 2008.

- DOE actions that conflict with its claim to be promoting and committing to a robust safety culture;
- Systemic concerns related to spoken and written intents to change without the necessary follow-through and implementation of reforms.
- Concerns with the investigation process for safety culture and whistleblower concerns;
- Safety culture concerns beyond the Waste Treatment Plant;
- The recommendation that DNFSB require DOE to establish Safety Conscious Work Environment procedures and regulations across the nuclear weapons complex.

Hanford Challenge hopes that the DNFSB recommendations and resulting reforms lead to changes that are measurable and improve the currently broken system into an ethical, safe and solution-oriented environment. Moreover, Hanford Challenge supports a viable, effective and safe Waste Treatment Plant at Hanford, and applauds the Board's efforts to assure such a result.

## Hanford Challenge Comments

**Background:**

On June 9, 2011, the Board issued a letter with Recommendations to Energy Secretary Steven Chu concluding that "the Hanford Waste Treatment Plant (WTP) project is not maintaining a safety conscious work environment where personnel feel free to raise safety concerns without fear of retaliation, intimidation, harassment, or discrimination."

The Board's letter was appropriately critical of the US Department of Energy (DOE) and contractor treatment of a terminated senior engineer, Dr. Tamosaitis. The letter detailed alleged witness tampering, and raised the specter of a federal criminal probe. The Board recommended that the DOE "assert federal control at the highest level" and correct the deficiencies. Finally the Board recommended that the DOE conduct an "independent and non-adversarial review" of the treatment of Dr. Tamosaitis.

On June 30, 2011, Secretary Chu answered the Board's letter stating that he "accepts the Board's recommendations to assert federal control to direct, track and validate corrective actions to strengthen the safety culture at WTP." Chu listed a series of actions that the DOE plans to undertake, including:

- Holding a series of town hall meetings led by senior DOE officials to highlight the importance of maintaining a strong safety culture.
- Conducting an independent review of safety culture across the entire DOE complex.
- Combining the employee concerns programs at Hanford for the Office of River Protection and Richland Operations Office to strengthen the programs and increase their visibility.
- Having ombudsmen from DOE headquarters act as advocates for employees and enable employees to have access to a hotline and an email inbox to ask questions or raise concerns directly or anonymously.

Secretary Chu stated the DOE "cannot accept the allegations" made by the DNFSB without first reviewing the Board's investigative file. The Board declined this request. Secretary Chu did not accept the Board's recommendation to conduct "a non-adversarial review of Dr. Tamosaitis' removal and his

current treatment by both DOE and contractor management and how that is affecting the safety culture at WTP." Secretary Chu instead stated that DOE would "support" the ongoing Department of Labor review of Dr. Tamosaitis' allegations.

Secretary Chu also defended the DOE's Health, Safety and Security Office's (HSS) review of the safety culture at the WTP. The Board specifically criticized the HSS review in its June 9th Letter, characterizing the review as an example of the failed safety culture that is being reinforced by DOE. He argued that Bechtel commissioned its own internal surveys and training at the WTP as part of efforts to improve the safety culture.

Finally, Secretary Chu took issue with the Board's assertions that senior DOE and contractor management had suppressed technical dissent on the project and during the DNFSB investigation. He claims in his response that the actions of these senior DOE and contractor managers "may have been misunderstood by the Board."

While these announced actions sound promising, the Secretary's refusal to accept the Board's findings is troubling, as are the DOE's efforts to obtain confidential investigative files from the Board. More troubling still is the involvement of DOE officials in the removal of Dr. Tamosaitis from his position, and DOE's failure to either acknowledge or investigate this evidence – put on Hanford Challenge's website in March 2011. Finally, the track record of the Department in regard to undertaking meaningful and lasting reforms on the safety culture issue, which has plagued DOE for decades, is disheartening. This is best characterized by the opening statement of Congressman Burr in a 2000 hearing of the Energy and Commerce Committee, where he stated,[2]

> *"Today the committee will review whistleblower retaliation at the Department of Energy facilities operated by its contractors. We will primarily focus on two issues: first, has the Department taken the necessary steps to ensure that contractor employees are encouraged to openly disclose violations of law, unsafe work conditions, and other examples of waste, fraud, and abuse without fear of retaliation, or has the Department's zero tolerance policy for reprisals against whistleblowers simply been a false promise that has died due to the vacuum of leadership? Second, is the Department's policy to reimburse its contractors' legal defense costs to fight a whistleblower an appropriate use of taxpayer funds, or has the Department all too willingly funded contractor defense costs in an effort to wear down whistleblowers, regardless of the merits of the whistleblower's claim?*
>
> *The committee has been studying these issues closely, and I am concerned that the Department has once again fallen into a very familiar cycle. This familiar cycle at DOE begins with a genuine understanding of a problem, then a commitment to reform, and then an announcement and lengthy press release from DOE headquarters describing how they will resolve the problem, but the Department always seems to forget to follow through on these reforms."*

[2] Hearing, before the Subcommittee on Oversight and Investigations of the Committee on Commerce House of Representatives, 106th Congress, Second Session, "WHISTLEBLOWERS AT DEPARTMENT OF ENERGY FACILITIES: IS THERE REALLY ``ZERO TOLERANCE'' FOR CONTRACTOR RETALIATION?", May 23, 2000.

In short, a series of pronouncements, without any form of procedural or regulatory follow-through, is just more hot air. At the heart of the matter is leadership. The DOE has not shown ethical, appropriate or accountable leadership in establishing or maintaining a safety culture ethic. In fact, it has done just about the opposite, as will be discussed later. It is critical that *meaningful procedural and regulatory reforms* be implemented to ensure a path forward that protects employees and ensures the construction of a Waste Treatment Plant capable of safely and effectively containing Hanford's high-level nuclear waste in glass.

The following points outline Hanford Challenge's perspective on safety culture at Hanford and provide detailed support for the DNFSB's recommendations:

## Safety Culture History and DOE's role:

1. The DNFSB performed an important public service by exercising its oversight responsibilities and alerting the Secretary of Energy to a fact that has been obvious to many Hanford observers for some time – the safety culture at Hanford is designed to suppress the honest reporting of safety and technical concerns that might threaten the cost or schedule of the work. The case of Dr. Walter Tamosaitis is but one of many other lesser known examples of reprisal.

2. Bechtel has a documented history of suppressing employees with safety concerns.

    a. In 2005, workers approached the Nuclear Oversight Program of the Government Accountability Project (predecessor to Hanford Challenge) and disclosed widespread Quality Assurance violations, defects in workmanship in scrubber tanks that had been delivered and installed as part of the nuclear safety function of the WTP, and widespread suppression of the raising of concerns and issues. Workers approached our program with the express intention of remaining confidential, and funneled information to us for disclosure. In 2006, the CBS news program *60 Minutes* aired a story, *Lethal and Leaking* that included coverage of some of these allegations. A letter[3] was sent to the Nuclear Regulatory Commission and to DOE outlining the allegations in detail, yet no investigation was ever conducted. It is indicative of exactly how broken the safety culture was and is at Hanford that public interest groups and insiders must work together to reveal the truth about safety at a large government site like Hanford. This remains the case today.

    b. In 2005, the Department of Energy itself confirmed the existence of a hostile working environment at the Waste Treatment Plant in a January 18, 2005 Report. The DOE investigation team interviewed 117 employees, and found:

> *Greater than 50% of the workers interviewed believed their job would be in jeopardy due to their participation in this inquiry. Most of the interviewees*

[3] Attached for your review.

*mentioned other workers had issues but felt they could not risk their employment by coming forward. .. Roughly 20% voiced the belief that when individuals raise safety concerns, those individuals are targeted for future lay-off lists. Roughly 15% of the interviewees claimed there was fear of lay-offs for workers who reported issues to Labor Relations or with the Employee Concerns process.*[4]

3. In 2008, the DOE imposed a civil penalty for nuclear safety violations against Bechtel National, Inc. based upon the findings of a DOE hearing officer that a Bechtel engineer had been terminated after having raised nuclear safety concerns.[5]

4. Also in 2008, four Bechtel managers were disciplined for eavesdropping on a confidential meeting between DOE Manager Shirley Olinger and five Hanford safety craft representatives from the Waste Treatment Plant who were meeting to complain about safety problems at the plant. The meeting was taking place in the DOE Manager's office, and Bechtel managers listened to the meeting via a cell phone that was "inadvertently left on" after a manager called one of the workers. It was due to a whistleblower that Bechtel's illegal eavesdropping was revealed.

5. Despite these findings, little was done to address the broken safety culture that plagues the WTP. Rather than see the consistency between the findings from 2005, 2006, 2008 and today, DOE has ignored the documented history.

6. The Department of Energy is caught in a conflict of interest from which it cannot easily extricate itself. As a signatory to the Tri-Party Agreement (TPA), a legally-binding contract between the State of Washington and the US EPA, the DOE is required to meet the deadlines it has itself negotiated. The TPA agencies occasionally modify milestones for cleanup in a change package. The most recent changes were signed in the fall of 2009. In July 2010, Dr. Tamosaitis, among others, raised concerns about the closure of the design for the pretreatment plant. The closure of this part of the WTP design was due in July. The prospect of missing the first significant milestone was too much for DOE or Bechtel to tolerate and Dr. Tamosaitis was dismissed from his position and the pretreatment design was closed, thus meeting the milestone and securing a $5 million fee for Bechtel.

7. There is strong evidence in publicly available email communications showing a DOE official instigating the removal of Dr. Tamosaitis. With such clear evidence of DOE participating in this high profile termination, the assertion by Secretary Chu that: "Over the past year, the Department has undertaken a broad range of steps to assure a strong and questioning safety culture at WTP" strains DOE's credibility.

[4] Letter, R. Schepens, DOE ORP to J.P. Henschel, BNI, "Contract No. DE-AC27-01RV14136 – Employee Concerns Inquiry and Analysis Report," January 18, 2005, Att. p. 2.
[5] Letter, M. Thompson, DOE-HSSA, to W. Elkins, BNI, Preliminary Notice of Violation, September 15, 2008.

8. Further, there are credible allegations that senior DOE officials attempted to improperly influence the testimony of at least one senior technical expert, who was allegedly upbraided in a semi-public fashion. These kinds of interactions form the basis of the Board's investigation around alleged witness tampering.

9. The DOE's Health, Safety and Security (HSS) office's investigation into the safety culture that Secretary Chu alludes to was a farce. Several employees told Hanford Challenge that their allegations were not reflected by any measure in the report, and stated that they felt betrayed by the DOE investigation, which exposed them to reprisal and discrimination without reflecting their true concerns. Employees were, in some cases, greeted and/or escorted to the HSS interviews by contractor and/or DOE managers with the HSS investigators when the witnesses arrived. This approach not surprisingly had the effect of suppressing the honest and free flow of testimony. Even in the circumstances, some employees did speak out to HSS investigators, but their concerns were dismissed as being "pockets" in an otherwise healthy culture. Yet the instance of one employee who is fearful of raising a concern may be all it takes to lead to a preventable disaster. The DNFSB called it correctly when it stated that the HSS investigation was an example of the broken safety culture.

10. Mere words will not address a broken safety culture. It is the actions of the DOE that matter most. To date, DOE's actions fall far short of those necessary to bring about a healthy safety culture:

    - DOE has partnered with the contractor to reward the premature closing of a dangerous design (five million dollar incentive fee was obtained for closing this milestone), over the objections of the senior engineer and manager whose job it was to raise such objections. That engineer was subsequently terminated from his position at the WTP – an action that was initiated by the DOE.

    - The DOE official who initiated the removal of Dr. Tamosaitis stated in a sworn statement, which he provided to the Department of Labor, that he did not direct any contractor to take any specific actions regarding Dr. Tamosaitis in spite of evidence to the contrary.

    - The DOE has yet to conduct any sort of investigation into the removal of Dr. Tamosaitis. His termination is a continuous reminder to all WTP employees of the fate that lies in store for those who raise inconvenient truths, even when it is their job to raise those concerns.

    - Despite the Board's thorough documentation of the Office of Health, Safety and Security's tragically botched review of the safety culture at the WTP, the Secretary

continues to defend that review! We can now expect that the same level of professionalism and competence will be brought to bear in the DOE's Extent of Condition review across the complex. We will not be terribly surprised when no problems are found – just "pockets" that we can all safely ignore.

- DOE has not conducted any kind of investigation into the actions of the Federal Project Manager for DOE against Dr. Tamosaitis, despite Hanford Challenge making such evidence public in March 2011.

- DOE officials have attempted to improperly influence the testimony of a technical expert and have engaged in harassment and intimidation against that expert. The DOE asserts that this was all just "a misunderstanding," and claims it does not have access to the sworn statements and evidence relied upon by the DNFSB despite the apparent presence of DOE lawyers during parts of the DNFSB investigation in which sworn statements were taken.

- The DOE has gutted its employee concerns programs under Secretary Chu across the DOE complex. Secretary Chu presented in the response to the DNFSB recommendations that DOE is merging the employee concerns offices of Richland Operations (RL) and Office of River Protection (ORP) at the Hanford Site as evidence of progress. This is a mistake for multiple reasons:

    i. Each Hanford field office oversees a different geographic cleanup area with its own quirks, challenges and conflicts. For this reason, both DOE RL and DOE ORP should have their own employee concerns offices that understand the scope of work their contractors are conducting and is equipped to handle those concerns.

    ii. Currently, the employee concerns offices are notorious for referring problems back to the contractors to manage. This is not effective and has often exacerbated problems instead of resolving concerns. Employees usually seek help from DOE when they are not finding redress from their employer. In practice, the employee concerns program is avoided by workers. It is widely known that concerns are referred back to the employers who have been unable or unwilling to solve a problem and that those who have attempted to use DOE's employee concerns program have suffered discrimination, fear of reprisal and, in some cases, termination for bringing their concerns forward.

    iii. Employees have complained, repeatedly and over the years that their concerns were never investigated, were closed out without input from them, or simply ignored. There have been periods with the DOE Office of River Protection when

Employee Concerns were properly investigated and resolved. The rigor and reliability of the investigations seems tied to the political leadership in the local office at the time.[6]

iv. Combining the offices will not improve their effectiveness. Clear actions must be taken by each field office to address and reform their ineffective, understaffed and politicized programs. It would be prudent to seek independent assistance in reforming these programs to begin the slow process of building worker trust in the program. Reform will need to be demonstrated by resolving worker concerns without ill-effect to their careers.

- The DOE has been dismissive towards the DNFSB as evidenced by internal emails and memoranda (which have been provided to the Board and to Congress) and in public correspondence with the Board. For instance, in February 2011, the General Counsel of the DOE challenged the Board's jurisdiction and competence to conduct an investigation into allegations of witness tampering at a Board hearing.

- The DOE's demand to have access to the Board's investigative confidential files is further evidence of DOE's inability to recognize a broken safety culture. The testimony in the Board's files is confidential to protect those who spoke to the Board. Workers spoke to the Board in confidence *because* they were afraid of the impacts to their careers if DOE or Bechtel management knew that they had spoken up.

11. In light of this history, it rings hollow that DOE will conduct town hall meetings to assure workers that it is now safe to raise safety and technical concerns. Does the DOE really think that employees will attend and start raising important safety, health and technical concerns about the project at such meetings? Or that they will utilize the "internal processes" that somehow always fail to result in the protection of employees who raise concerns?

12. Secretary Chu's actions fall far short of meaningful action. Town hall meetings, telling workers it is now somehow safe, encouraging workers to use the many (broken and unreliable) processes for addressing concerns – none of these actions are lasting, measurable or enforceable. They do *nothing* to address the safety culture issues identified by the Board. First, there must be a thorough and independent investigation and airing of the evidence before an impartial and empowered body that can take appropriate action to remedy the injustices and get the Waste Treatment Plant back on track. The DNFSB is that body – and it must have the enforcement tools and capacity to effectively undertake this mission. Second, there must be a set of

[6] This was especially true during the reign of Manager Shirley Olinger, who responded well to many employee concerns, acted to protect employees suffering reprisal, and demanded a high level of performance from the DOE employee concerns office at ORP.

enforceable procedures and regulations that establish clear expectations for a non-chilled work environment, with meaningful investigative and enforcement tools attached.

13. The Board correctly noted that the DOE should be conducting an "Extent of Condition" analysis to determine whether the safety culture problems extend beyond the Waste Treatment Plant. Hanford Challenge fully supports this Recommendation. Retaliation against employees throughout the Department of Energy complex is hardly a recent phenomenon. Again, Congressman Burr from the 2000 House Committee on Energy and Commerce, Oversight and Investigation Committee hearings:

> *In 1995, former Secretary Hazel O'Leary presented a package of whistleblower protection initiatives, including a zero tolerance policy for reprisals and a proposed limitation on the reimbursement of contractors' legal defense cost in certain cases, but the implementation of these reforms at DOE sites has been inconsistent due to the lack of a clear guidance from headquarters--again, an all-too-familiar problem at the Department of Energy.*
>
> *Soon after announcing these reforms, Secretary O'Leary realized that they were not being implemented. In March 1996, in a press release she quoted, ``These whistleblower initiatives have not been implemented to my satisfaction, and I want to get this effort back on track.''*
>
> *Secretary O'Leary asked former Under Secretary Tom Grumbly to take the lead, but again implementation was derailed. In my mind, the real test of zero tolerance policy is whether contractor employees are now more willing to come forward with a legitimate workplace concern without the fear of retaliation from management and with confidence that DOE will protect them.*
>
> *Unfortunately, we will hear about the cases today of several whistleblowers who not only suffered acts of reprisal when they initially identified serious safety concerns, but who also, in some cases, were subject to ongoing and unrelenting retaliation by both DOE and its contractors throughout the complaint process.*
>
> *In all these cases, the Department of Labor investigated the complaints and issued findings in favor of these whistleblowers. Remarkably, the Department has responded by providing virtually no support to the whistleblowers, while providing generous taxpayer support for the contractors fighting these meritorious claims.*[7]

**Safety Culture Investigations:**

14. Hanford Challenge partially supports the Board Recommendation that the DOE "conduct a non-adversarial review of Dr. Tamosaitis' removal and his current treatment by both DOE and

[7] See footnote 2 for citation.

contractor management and how that is affecting the safety culture at WTP." The nature and validity of this review must be carefully considered. As the Board notes, and the DOE asserts, such a review has already been conducted by DOE's Office of Health, Safety and Security – a review criticized by the Board yet belabored as well-done and credible by the DOE.

15. Given the DOE's expressed attitude, how can the Board rely upon the DOE to conduct an impartial and credible review? Hanford Challenge notes that the Secretary of Energy has refused to accept the Board's recommendation on this matter, repeating the oft-stated position that the Department of Labor is conducting such a review. There are multiple issues associated with this claim:

    a. A Labor Department review is not "non-adversarial." It is an adversarial proceeding brought by one aggrieved employee with a specific set of allegations.
    b. The Labor Department process is designed to resolve particular allegations of reprisal, not examine the larger safety culture effects of a termination, as the Board is suggesting.
    c. The Labor Department investigation is not timely, as evidenced by the fact that, a year later, the investigation phase has yet to even begin.
    d. The Labor Department review is neither complete nor credible. The Labor Department investigator rarely travels to a site to conduct interviews, does not always take sworn statements, does not seek evidence from the parties, does not have subpoena power, and is not required to do any of these things. After an initial decision is reached in such cases (by OSHA), an Administrative Law Judge is appointed to adjudicate the proceedings in a traditional court setting. Cases are often dismissed on technical grounds. For instance, the statute of limitations for these kinds of cases are as short as 30 days. While there is an appeal process to the Secretary of Labor's Administrative Review Board, these proceedings can, and usually do, take years. Some cases have dragged on for 8 years.

16. As the opening statement of Rep. Burr, indicates, *even if* the Labor Department issues findings on behalf of a wronged employee, the Department of Energy may do little to nothing about it. For instance, in October 2007, the Washington Supreme Court affirmed a unanimous jury verdict in the case of eleven pipefitters, whistleblowers at Hanford, with an award of $7.3 million. Internal agency records indicate that the contractor, Fluor Federal Services, Inc. charged the Department millions of dollars in attorney fees and costs – effectively putting the Department in the position of subsidizing illegal retaliation. The DOE took no action on this verdict, despite its vaunted "zero tolerance policy," and Fluor Federal Services still has a contract at the Hanford Site. Why would it be any different today?

17. More recently, the Labor Department process came under heavy fire from the Government Accountability Office (GAO) last year. The GAO reported to Congress its findings on the OSHA whistleblower program in its report titled "Whistleblower Protection: Sustained Management

Attention Needed to Address Long-standing Program Weaknesses." The GAO concludes that OSHA neglected its whistleblower program and failed to implement GAO's prior recommendations. Senators Tom Harkin (D-IA) and Patty Murray (D-WA), and Representatives George Miller (D-CA) and Lynn Woolsey (D-CA) responded to the GAO report with a press release stating:

> *The GAO found that for the last two decades, the Labor Department has not provided adequate management attention to the whistleblower program. The independent watchdog agency said the program's training for investigators and their supervisors is inconsistent from region to region, that internal controls are lacking to monitor compliance with policies and procedures, and that few of the GAO's previous recommendations from 2009 have been implemented.*
>
> *The GAO also noted that despite an increased workload over the years, the number of inspectors has remained relatively flat, and urged the program establish a separate budget for the whistleblower program. In fiscal year 2009 more than 2,100 whistleblower complaints were filed with OSHA. Congress provided the Labor Department with funds for 25 additional whistleblower investigators in fiscal year 2010 to deal with a growing caseload.* [8]

18. Given the documented problems with this process, how, exactly, is the Labor Department investigation helpful to the DOE in deciding whether or not there is a chilling effect at the Waste Treatment Plant? The DOE should drop the charade of pretending that the Labor Department process is any kind of replacement for the Department itself to arrive at its own independent conclusions about the reprisal against Dr. Tamosaitis and its effect on safety culture at the WTP.

19. Therefore, Hanford Challenge supports the Recommendation that an independent investigation be conducted, *but not by DOE*. The final and most salient point here is that DOE is itself accused of being part of the discriminatory actions against Dr. Tamosaitis, and is named as a defendant in the very same complaint being touted by DOE. Clearly, DOE has a conflict of interest in any kind of investigation that involves this case. However, the issue of whether there was reprisal against Dr. Tamosaitis and a resulting chilling effect on some employees is an urgent and important one. Therefore, Hanford Challenge recommends that the Defense Board itself commission such an investigation by a reputable and credible outside party, to report its findings to both DOE and the Board. Appropriate action could then be taken in response to the findings.

## Safety Culture Concerns Beyond the Waste Treatment Plant:

20. At the Hanford Site, Hanford Challenge has been investigating allegations of reprisal against tank farm workers, including the termination of four Health Physics Technicians since March 2011.

[8] GAO, WHISTLEBLOWER PROTECTION: Sustained Management Attention Needed to Address Long-standing Program Weaknesses, GAO-10-722, August 2010.

Numerous workers have contacted Hanford Challenge with concerns about a chilled work environment due to these terminations. The workers perceive the terminations as retaliatory discharges due to the fact that these employees raised numerous safety issues and consistently filed Stop Work Orders, Problem Evaluation Requests and Employee Concerns. Unfortunately, it appears that the Department of Energy has failed to conduct any kind of independent assessment of these terminations or of the alleged chilled work environment. Instead, the Department has once again partnered with the contractor in presenting a unified front in denying that there is any kind of problem, even though the Department has not conducted its own investigation.

21. The level of fear and distrust among other tank farm workers (besides Health Protection Technicians) towards raising concerns appears to be very high, judging from the number and quality of contacts we receive from that community, as well. Workers report that filing a Stop Work, a Problem Evaluation Request, or an Employee Concern can result in discrimination, retaliation and discharge on trumped-up charges. Hanford Challenge is very concerned that the Employee Concerns manager at one tank farms' contractor also participates in disciplinary decisions and assists managers in navigating coaching and other disciplinary actions.

22. The problems identified in point 20 and 21 further support the Board's recommendation that DOE should be conducting an "Extent of Condition" analysis to determine whether the safety culture problems extend beyond the Waste Treatment Plant.

23. The protection of dissent is critical to safety, as the Board recognizes. In Japan, we are witness to the failure of a system to heed internal warnings about the engineering failures that led to the meltdowns at the Fukushima reactors, and the ongoing industrial disaster that has spilled massive amounts of radioactivity to the environment. In 2002, a Japanese whistleblower exposed two falsified inspection reports regarding the Fukushima plant. This led to the uncovering of twenty-seven other falsified safety reports, the shutdown of 17 reactors, and intense regulatory and public censure. Tepco, the Japanese utility, responded to the scandals by increasing the number of nonvoting external auditors, along with a corporate code of conduct and an ethics committee to enforce it. Managers set as explicit goals to "reform the corporate culture" and "restore public confidence." But, as an outside observer wrote, "in the absence of legal or regulatory changes, any single company trying to shake up its corporate governance culture is like a drug addict trying to go clean while still hanging around his substance-abusing friends: There are no role models and plenty of bad peer pressure."[9]

[9] Article, *The Fukushima Warning, Mismanagement at Tepco is a symptom of deeper governance problems in corporate Japan,* Wall Street Journal, June 30, 2011.

**Establishing a Safety Conscious Work Environment:**

24. Under the Board's enabling statute, the Board is empowered to "prescribe regulations to carry out its responsibilities."[10] We submit that the time has come for the DNFSB to invoke its authority to require DOE sites under its purview to establish and maintain a Safety Conscious Work Environment. Alternatively, the Board is able to make a Recommendation to the Secretary of Energy to promulgate such regulations.

25. A Safety Conscious Work Environment (SCWE) is defined as a work environment in which employees are encouraged to raise concerns and where such concerns are promptly reviewed, given the proper priority based on their potential safety significance, and appropriately resolved with timely feedback to employees.[11] Attributes of a Safety Conscious Work Environment include (1) a management attitude that promotes employee involvement and confidence in raising and resolving concerns; (2) a clearly communicated management policy where safety has the utmost priority, overriding, if necessary, the demands of production and project schedules; (3) a strong, independent quality assurance organization and program; (4) a training program that encourages a positive attitude toward safety; and (5) a safety ethic at all levels that is characterized by an inherently questioning attitude, attention to detail, prevention of complacency, a commitment to excellence, and personal accountability in safety matters.[12]

**Recommendations:**

26. Hanford Challenge requests that the DNFSB:

    A. Establish, or issue Recommendations to the DOE to establish Departmental policy that calls for the positive presence of a Safety Conscious Work Environment in its nuclear facilities;

    B. Institute rules, procedures and regulations requiring DOE managers, supervisory personnel, and contractor and subcontractor employers to achieve and maintain Safety Conscious Work Environment programs at nuclear sites;

    C. Establish protocols and procedures for DNFSB field representatives and investigators to ascertain, through its normal inspection duties or upon good cause, whether a demonstrative "Safety-Conscious Work Environment" program exists at a specific facility or within any DOE division, and to order corrective actions to remedy departures from such an environment.

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[10] 42 United States Code, section 2286a. "Functions of the Board. [Atomic Energy Act, Sec. 312] (c) Regulations. The Board may prescribe regulations to carry out the responsibilities of the Board under this subchapter."

[11] Nuclear Regulatory Commission, Safety Culture, at http://www.nrc.gov/about-nrc/regulatory/enforcement/safety-culture.html

[12] US Nuclear Regulatory Commission, Office of Nuclear Reaction Regulation, NRC Regulatory Issue Summary, 2005-18, GUIDANCE FOR ESTABLISHING AND MAINTAINING A SAFETY CONSCIOUS WORK ENVIRONMENT, August 25, 2005. On the web at http://www.nrc.gov/reading-rm/doc-collections/gen-comm/reg-issues/2005/ri200518.pdf.

27. Such regulations are consistent with the policy and purpose of the Atomic Energy Act which includes advancing "the goals of restoring, protecting, and enhancing environmental quality, and to assure public health and safety."[13]

28. It has been repeatedly demonstrated that workers are the key ingredient to protecting the health and safety of the public and workers. Agency and contractor officials alike rely upon employees as early warning systems — to exercise sound judgment and prevent problems from escalating into incidents that lead to wasted resources, environmental threats, injury, and death.

29. As the Board has recently documented, employees who have raised environmental, safety and health concerns have subsequently experienced significant workplace reprisal that has impacted their careers, financial stability, and personal and familial relationships.

30. Too often, concerned employees are turned into whistleblowers who take their concerns up the chain of command and often to government agencies, the news media, Congress, and the public in an effort to bring attention and reform to an issue that involves safety, health, protection of the environment, management of fiscal resources, security, and other vital public policy concerns. Often, such employees fall victim to harassment, intimidation, retaliation, and discrimination. Many have been terminated from their jobs, and their careers ruined.

31. The time is right for there to be established an enforceable, measurable, and accountable system of regulations to be enacted by the DOE, at the Board's instigation. In the last twenty-five years, there have been hundreds of cases from DOE sites brought by workers who have resorted to litigation in courts and before administrative agencies because of alleged reprisals. These cases have cost contractors, the government and the employees literally millions of dollars in attorney fees and judgments, fines and penalties.[14]

32. Operations at DOE facilities have been adversely affected in a multitude of ways because of these cases. A systemic approach is needed to institute and encourage a culture at DOE nuclear facilities that assures the prompt and safe reporting of concerns in a manner that protects the disclosure and the person making the disclosure, and results in a timely and effective review of the allegations.

33. It is fundamental to the mission of the Department of Energy that it protect the public, safety and health in the regulation and control of its nuclear weapons production facilities. It is also

[13] 42 U.S.C. § 5801(a). Also see, 42 U.S.C. § 7101 (Department of Energy Organization Act) and 42 U.S.C. § 2011, (the Atomic Energy Act of 1954, as amended.).

[14] For example, in October 2007, the Washington Supreme Court affirmed a jury verdict in the case of 11 pipefitters, whistleblowers at Hanford, and an award of $7.3 million. Internal agency records indicate that the contractor charged the Department millions of dollars in attorney fees and costs in addition to the award – effectively putting the Department in the position of subsidizing illegal retaliation.

crucial that DOE and DOE contractor employees be encouraged to voice Environmental Safety and Health concerns without experiencing reprisal.

34. More importantly, a "chilling effect" message is sent to the workforce at large when an employee is terminated for raising a concern, as the Board has noted. Such actions suppress the reporting of concerns as employees understandably become fearful of suffering reprisal were they to report a concern. As a result, the work environment destabilizes, morale among the employees dampens and the atmosphere becomes charged with covert hostility.

35. The commercial nuclear industry has a long history of dealing with the issue of employee concerns. During the past twenty years, the industry has evolved principles and procedures that establish work environments encouraging safety reports and prohibiting retaliatory conduct that could chill such reports. The Nuclear Regulatory Commission (NRC) defines its mission as the protection of the public safety and health in its regulation of commercial nuclear facilities.

36. The NRC has made a clear and cogent determination that the ability of employees to raise concerns is integral to the protection of public health and safety. The hazards at DOE nuclear facilities are no less dangerous, and yet throughout the DOE complex, reprisals against employees continue unabated and hostile working environments are instituted without challenge from the DOE. We urge the prompt incorporation of the NRC methodology for protecting employee concerns at its facilities. This would assist the DOE in improving its operations consistent with its mission and aid in establishing a work environment that has a "zero tolerance for reprisal" in fact and not just in rhetoric.

37. In 2005, the NRC issued a Regulatory Issue Summary, (RIS 2005-18, "Guidance for Establishing and Maintaining a Safety Conscious Work Environment") which identified effective practices for licensees and contractors "for ensuring problem identification and resolution essential to ensuring the safe use of nuclear materials and operations of facilities." (Id., at RIS 2005-18 at 3.)

38. Some of the principles and guidance can help structure Board-promulgated regulations for a DOE version of the Safety Conscious Work Environment (SCWE). These could include:

    - Establishing a Policy Statement published to all employees that asserts that it is "everyone's responsibility to promptly raise concerns" and "makes clear that retaliation for doing so will not be tolerated." (Id. At 4) This includes allowing and encouraging workers to use work hours to report concerns, sanctions for retaliation, setting expectations for management behaviors that fosters employee confidence in raising concerns, providing information on the various avenues for raising concerns, making clear that employees have the right to raise concerns externally, and a commitment to training.
    - The training program helps reinforce the principles and practices of SCWE and should include clear explanations of the legal definition for protected activity,

adverse action and retaliation, as well as consequences for deviation from applicable laws and regulations. Training can also include defining gateways to identify concerns, appeal processes, and alternative processes for raising concerns. Training can also emphasize appropriate management behaviors, including the importance of protecting confidentiality, fostering good listening skills and identifying countervailing pressures (goals and deadlines) that may interfere with appropriate listening and responses.

- Important aspects of an effective SCWE include conducting the necessary open inquiry to identify the full scope of the concern(s) being brought forward, and assuring that concerns are promptly prioritized, reviewed, and resolved. Employees who bring forth concerns should be provided feedback, and appeal avenues made available for employees who continue to hold a concern.
- Management should establish an alternative process to raising concerns with line management.
- The program requires assessment, including lessons learned evaluations, benchmarking, the establishment of performance indicators, survey and interview tools, direct observations, exit interviews, and 360-degree appraisals.
- Contractors should be required to flow down expectations and requirement of the SCWE program to sub-contractors.
- Senior management should be involved in reviewing employment actions when there is any indication that it involves an employee who raised a concern.

## Closing

Hanford Challenge appreciates and applauds the work of the Defense Nuclear Facilities Safety Board at Hanford and throughout the DOE complex. The Board is the only entity that is conducting independent oversight on nuclear safety matters and is a much-needed voice. Hanford Challenge will be advocating that the Board get increased capacity and authority from Congress to enable it to conduct the oversight necessary to assure that safety and health is safeguarded throughout DOE's nuclear weapons complex.

Submitted by:

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February 19, 2008

Patti Silva
Office of Nuclear Material Safety and Safeguards
Mail Stop EBB-2-B02
Washington, D.C. 20555

RE: NRC Review of the Hanford Waste Treatment Plant

Dear Ms. Silva,

I attended the public meeting held by the NRC, and hosted by you, on Wednesday, February 13, 2008 at the Hanford House hotel in Richland, Washington. Thank you for taking the time to present the scope of the NRC's proposed activities relative to the review of the Waste Treatment Plant, and for answering our numerous questions and listening to our comments.

I am writing to repeat my request for a meeting with some or all of the members of the NRC review team on the WTP project in order to share information which we believe relevant to your review. We acknowledge that the small NRC review team faces a daunting challenge under a tight schedule. By pointing out areas of concern and meeting in person to answer questions and provide closer detail, we believe we can help NRC produce a more effective review in the short time allotted.

The rest of this letter will attempt to outline our areas of concerns.

Throughout the design/construction phase of the Waste Treatment Plant (WTP) at Hanford, deficiencies in the design have been continually hidden, under-reported and left unaddressed. These hidden deficiencies threaten the future integrity of the project and the safety of plant workers and the public.

Most of these deficiencies fall into one of three categories:

1. Those where the design does not meet the safety standards (Authorization Basis) established for the project.

2. Those where quality requirements for the project were not appropriately followed.

3. Those where the Project created authorization basis processes not prescribed by 10 CFR 830 or DOE Orders related to safety were not well implemented, maintained, or adhered to (e.g., the "triple 0" documents. DOE/RL-96-0003 through DOE/RL-96-0006; the AB Amendment Request (ABAR) process)

Design deficiencies, where safety standards were not followed, and the failure to implement an effective Quality Assurance program have resulted in construction deficiencies that can become safety threats. The problem is that we only know the tip of the iceberg – many such discovered deficiencies were in fact misreported, unreported, or covered up and never addressed.

A close look at the first five years of the Project raises questions about the character and competence of the entities entrusted with designing, building and regulating this vital facility for treating Hanford's waste without third-party oversight. Considering the seriousness of Bechtel and DOE's failures, a new more trustworthy third party is clearly needed to intervene and provide much needed oversight of the remaining construction and design of the Waste Treatment Plant.

## Background

As you are no doubt aware, interest in the Waste Treatment Plant (WTP) has increased greatly during the last several years due to questions regarding the reliability of its design and construction in delivering a safe and viable plant. Specifically there has been a high level of public, congressional, and media interest in some of the problems resulting from the programmatic breakdown in nuclear safety and quality systems at the WTP project.

The problems became apparent with the installation of a defect-ridden 8,000 gallon Submerged Bed Scrubber vessel, a tank meant to collect extremely toxic, superheated high-level radioactive waste vapors during the vitrification process. Internal documents show that DOE and Bechtel both knew the vessel was flawed when it was installed. The specifications provided to manufacturer for the design were incorrect and the workmanship was poor. Incredibly, internal reviews identified the fact that the wrong design specs were provided, and the issue was flagged several times, with no corrective action taken. Further inspections on the workmanship once the vessel arrived at the plant uncovered defective workmanship including bad welds, and the vessel fabrication was found to be inadequate. Further, corrective actions were applied inappropriately.

The receiving Quality Control function should have identified the defects, including the fact that the wrong ASME codes were provided to the supplier. If not for the observations of an independent inspector reporting to the state and imposed on the WTP project by the State of Washington, the corrective actions may not have been completed as committed to in the corrective action documentation[1].

In the case of this particular vessel, the location was to be in a "black cell". A "black cell" area is designated as inaccessible after the plant begins operation due to the lethal amounts of radioactive material in the area during the processing of the waste. The failure of any such vessel could be disastrous: any resulting leak from poor design or craftsmanship could force the plant into an early closure and put the surrounding area at risk of contamination. It was later realized that up to 66 other "black cell" vessels in various stages of completion were also designed using the wrong specifications and had to be corrected.

[1] See Government Accountability Project's website for details and documentation on the vessel history. <www.whistleblower.org>

This is a critical example of the failure of both DOE and Bechtel to ensure quality and safety requirements are met. Quality requirements, as cited in 10 CFR 830, Subpart A, establish the criteria for work processes, design, inspection, acceptance, testing, and assessment activities. If the quality processes had been clear and implemented properly, none of the errors on the vessel would have occurred.

What was behind the numerous errors and breakdowns in procedures surrounding this critical nuclear component? In a word: money. The contractor, Bechtel, was rushing to meet a contractual milestone that awarded them $45 million in fee if the tank were installed within a certain timeframe. Bechtel barely met that timeframe, and only by installing a tank it knew to be defective. The day after the tank was installed, Bechtel demanded, and received, its $45 million. The installation of this flawed vessel is but one example of the systemic breakdown in the production-over-quality mentality typified by DOE's "fast track/design build" method to accelerate construction (a method roundly condemned by the GAO). The overemphasis on production and the push to finish the plant has caused negligence on the part of DOE and Bechtel in maintaining safety and quality. The deficiencies in the implementation of safety standards (Authorization Basis) were further exacerbated by the systematic weakening of oversight by DOE. These were the root causes of many of the failures, like that of the vessel, that have led to design errors, delays, and cost overruns. Currently the cost has increased by 150%, from $4.3 billion to $11.55 billion and perhaps is rising further while the completion has been delayed to 2019[2].

## Summary: Authorization Basis-related deficiencies

Throughout the design/construction phase of the Waste Treatment Plant (WTP) project, internal records and the testimony of insiders evidences that the deficiencies in the design have been continually hidden, under-reported and left unaddressed. Many of these deficiencies include those wherein the design does not meet the safety standards established for the project, specifically, the Authorization Basis. Theoretically, where there is a conflict between the design and these safety requirements, either the design or the safety requirements must be changed so that they do not conflict. These changes need to be reviewed by qualified engineers and the oversight organization, in this case DOE.

In the early phases of the project, DOE did review both the original design and the changes to the design, as the design evolved into the construction phase. However, Bechtel's managers at WTP did not want burdensome oversight, asked for relief, and DOE seemed to oblige them, by granting them more and more autonomy, relinquishing their own oversight in the review process, in conflict with the implied review processes DOE is to perform per 10 CFR 830, as defined in the glossary for Documented Safety Analysis – Preliminary Documented Safety Analysis.

[2] Aloise, Gene. Government Accountability Office. Testimony before the Subcommittee on Energy and Water Development and Related Agencies, Committee on Appropriations, US House of Representatives. April 6, 2006.

- In 2002, Bechtel requested that DOE relax its oversight for Authorization Basis changes[3], DOE agreed allowing Bechtel to make certain changes independently[4].
- Minimal DOE oversight in reviewing Authorization Basis changes was a cause of non-compliance[5].
- A 2005 report by Bechtel regarding Authorization Basis stated that revisions made to the Authorization Basis in 2002 and 2003 resulted in multiple design deficiencies[6].
- In 2003 Bechtel made an effort to conceal an improper closure of a Corrective Action Report written regarding its deficient Authorization Basis management process[7].
- In 2003 a Bechtel report of the Authorization Basis discussed several non-compliances however they were not reported to DOE in the Price-Anderson Amendments Act reporting system, called the Noncompliance Tracking System[8].
- A second report written in 2003 reviewed similar non-compliances and safety evaluations that were found to be missing. The non-compliances found were chronic and reportedly could have led to a less conservative design of the facility, yet Bechtel again decided not to report[9].
- A third Bechtel report on the same kind of non-compliances was discussed in 2004 at a meeting where the voting attendees decided to report the non-compliances—but the vote was overturned by a re-vote by email (which did not meet the requirements of the project procedure) so that the non-compliances could continue to appear less obvious[10].

By failing to report significant non-compliances between the design and safety requirements, Bechtel could continue design/construction but at the cost of a facility lacking not only reasonable safety but the assurance that it could even operate. While it is important that the plant be built quickly, it is more important that it be built to operate within acceptable risk parameters. In the past, accelerating the construction/design has caused even longer delays due to mistakes and overlooked safety concerns that would likely not have occurred if the Authorization Basis had been seriously maintained and the requirements to maintain it kept current with the design applied.

## Summary: Quality Related Deficiencies

The basic purpose of any quality assurance program is to deliver a quality product. The personnel in the quality assurance program are supposed to find problems related to quality so that the responsible personnel on the project can fix them, and fix them well enough so that the

[3] Veirup, A.R.. Letter to DOE, Michael K. Barrett. April 17, 2002.
[4] Barr, Robert C. Letter to Bechtel, Ron F. Naventi, May 2, 2002.
[5] Bechtel Price-Anderson Office, Authorization Basis, PAAA-2005-0001. 2005.
[6] Schuette, Heidi, Analysis for 24590-WTP-CAR-QA-05-006, Inconsistencies Involving Design Documents and the Authorization Basis, March 16, 2005
[7] Employee Concern, Letter to DNFSB, Steven Stokes, September 17, 2003
[8] Murphy, Dennis W.. Authorization Basis Maintenance. PAAA-2003-0004. July 28, 2003.
[9] Papworth, L.G.. Authorization Basis Safety Evaluations. PAAA-2003-0006. November 20, 2003.
[10] Davis, Bob. Price-Anderson Review Board Memo to Bechtel, Jim Henschel. June 21, 2004.

problems do not come back. Quality Assurance programs DOE nuclear facilities not only are intended to ensure delivery of a quality product but are also key elements in support of safety management at these facilities.

Unfortunately, the Quality Assurance programs for the Waste Treatment Plant project have historically been subverted. The system has been such that problems were often disguised and personnel were actively discouraged from reporting or correcting them. This is often due to an attempt by management to keep the project schedule as a priority and maintain Bechtel's external image. There are several key examples of methods Bechtel has used to subvert Quality.

- An unofficial database was constructed to minimize quality problems and keep them less known. This system tracked "non-quality" issues on the surface, but some quality-related issues were contained improperly in this database. The database gives recommendations, but unlike the official database, these problems are not formally tracked for systemic issues. Further, except for during a year between 2002 and 2003 Bechtel's Price Anderson Authorization Act (PAAA) staff was not allowed to examine these reports and DOE rarely looked at them.
- In 2004, the PAAA staff were forbidden from reviewing documents other than those listed in a new, restrictive issue of the PAAA procedure. The list of documents to be examined fell short of the expectations in the PAAA guidance documents:
    - Currently "Archived" and Superseded (as of 2007):
        1. DOE Enforcement Program Roles and Responsibilities Guidance Handbook;
        2. Identifying, reporting, and Tracking Nuclear Safety Noncompliances
        3. Operational Procedures for Enforcement
- These 3 documents have been since superseded (2007) by the current Enforcement Process Overview (specifically Par IV, Compliance Assurance and Reporting, Noncompliance Identification).
- These documents suggest robust screening processes for the PAAA coordinator and his/her staff, to include internal assessments and external assessments. This was truncated by a revision to the PAAA procedure in 2004/2005 timeframe, whereby PAAA staff were limited to reviewing only the findings in internal assessments. The result was that they could not second-guess the QA assessment staff's conclusions on findings. Unfortunately, the QA assessment personnel were not always objective. There were cases whereby they allowed Corrective Action Reports to close inappropriately. For example, in one case related to the AB, the AB staff were to write a new procedure but failed to complete it. The QA staff responsible for the Corrective Action Report (CAR) closed it by citing an unrelated design document, instead. When the PAAA staff discovered this gross "error", the CAR was re-opened. There were 3 separate editions of the CAR found on the CAR database during that month. The QA manager from then on stated that the database did not contain record copies although previous documents had consistently stated that the copy of the CAR in the CAR database was the record copy. By changing philosophies, the QA department was allowed to subvert the CAR process without having to admit their inadequate CAR closure processes. Although a CAR should have been written on this incident, as a noncompliance with the CAR process, a new CAR was not written.

- When deficiencies were later raised with the AB processes, this issue was never identified. Evidence of this can be provided as requested.
- Additionally, design issues were not screened by PAAA staff. They included issues reported in DVRs and DVARs.
- Some employee concerns, sent as correspondences to the Project Director, were never screened by PAAA staff. The Employee Concerns staff were not included in distribution, and therefore, the concerns were never screened by PAAA staff. Examples of this can be provided on request, as well.
- The project placed strict rules on external inspectors, including the DOE. They did not inspect areas or documents that Bechtel did not want inspected, there were guidelines as to timing of visits from DOE before audits, and the Quality Assurance Department provided individuals to serve as "shadows" during DOE inspections. DOE inspectors were forbidden from conducting impromptu audits.

This subversion of the quality-related program has direct and potentially dire consequence for the operation and safety of the Waste Treatment Plant. Some problems have now become too big to hide. The improper installation of the aforementioned scrubber vessel was due not only to violations of the Authorization Basis but also to Quality Assurance's general methods of subversion. Another example comes from a concrete pour done in weather hot enough to compromise the concrete. Despite objections from an employee of the Quality Assurance department, management went ahead with the pour and consequently the concrete later was deemed unreliable. This was concrete that would be directly under the melter for the vitrification process. It is shocking that a member of the Quality Assurance team was ignored and overridden, and attributable to the fact that the QA function was subservient to the construction manager and had no independent authority, a clear violation of principles enshrined within 10 CFR 50, Appendix B.

## The Diffusible Hydrogen Issue

In spring of 2003, there was an incident where carbon steel was purchased, even though it did not meet the specification to protect this steel and its connection welds from failure due to corrosion potential from excess hydrogen in the weld filler material. The specification was conflicting and vague, so that it would be impossible for the vendors to understand what the contractor actually wanted. There were three separate vendors who incorrectly interpreted the specifications. The steel had been inspected by quality control and accepted by both quality control and field engineering. A root cause analysis objectively stated that there were problems with the specification and with the inspections completed by supplier quality, quality control, and field engineering. It was obvious that numerous barriers for quality assurance had been broken.

Of the seven corrective actions suggested in the root cause analysis and the corrective action report, three involving specification issues were rejected by the engineering manager and were pointedly ignored until late 2003, when the corrective action report was due for closure. At this point, the engineering manager refused to complete corrective actions on two of the three issues, and only partially addressed the third. At the agreement of the quality assurance manager, the corrective action report was closed without initiating or completing the corrective actions. There

was no management support to report this into the DOE tracking system for non-conformances and deficiencies.

### Authorization Basis Processes Noncompliant with DOE Safety Basis Requirements

The project created new processes not defined by the Authorization Basis requirements contained in 10 CFR 830 or DOE Orders in order to exempt whole chapters of the PSAR [PDSA] and to allow a longer timeframe in ensuring compliance with the PSAR. This novel, "jury-rigged" process led to the advent of the Safety Envelope Document (SED) system, which is not prescribed by any DOE Order or by any of the DOE/RL-96-0000 series documents listed above. Configuration management of the Safety Basis is not kept current as required by 10 CFR 830, Subpart B. The Preliminary Documented Safety Analysis contains the Preliminary Safety Analysis Reports. Parts of these were designated the "Safety Envelope Documents". Only these parts of the PSARs are updated. Although not officially part of the Authorization Basis, this nebulous group of documents are used as the authorization basis for the project. Screenings are executed to them, rather than the official Authorization Basis documents. They are updated on only a yearly basis, not in real time. Therefore, the SEDs are not maintained current. Up to a year can lapse before noncompliances between design/construction and the authorization basis are detected. By that time, design and construction will have progressed and it may not be possible to make corrections when AB noncompliances are discovered. It is much more difficult and expensive to back-fit.

Additionally, when the draft of DOE Technical Standard DOE-STD-1189-XXXX, Integration of Safety Into Design, is finalized later this year, the project will have progressed beyond the point of ensuring compliance with this new standard.

## Miscellaneous Issues

### Lack of Oversight

DNFSB

Unfortunately, there has been a paucity of DNFSB correspondences and technical reports since 2006. The DNFSB seems to have taken a hiatus from reporting Complex-wide. One DNFSB staffer, Mark Sautman, wrote some increasingly scathing reports on the project in early 2005, in his weekly DNFSB reports, particularly in the following weekly reports:

January 21

February 4

February 18

March 25

He was re-assigned to Savannah River site in late March of that year.

State of Washington

The State of Washington Department of Ecology had pledged to provide independent oversight of the project in July 2007. A contracting agency has just recently been hired, but no personnel have appeared on the project yet to provide state oversight.

This NRC review is our only hope for oversight of any type.

## Record-Keeping Issues

When PAAA personnel brought issues to light regarding the failure of WTP Document Control and Records management to meet the Quality Assurance Requirements Document (QARD) [required for waste being shipped to Yucca Mountain], the project director responded by directing the Document Control and Records Management manager to remove even the last meager form that only weakly met the requirements. After that point, there was no way for the project to demonstrate that it could comply with the QARD's requirement to provide "changes and reasons for changes" to implementing documents. A reason for the revision was listed on a Document Control for, but it was not a "Quality" record. There are no reasons listed for the individual changes to the documents. It is impossible to determine who directed any changes and the reasons. It is therefore impossible to know – whenever requirements are deleted from the implementing documents – who ordered the deletion or their reasoning for the removal. For example, it is not possible to know who ordered the reduction of documents to be screened for PAAA noncompliances. Requirement removal is only discovered by comparing procedural revisions.

## Conclusions

Please understand that the short summaries above have been taken from a much longer, detailed, and footnoted memorandum. Our concern is that work of indeterminate quality has potentially serious implications for ensuring the WTP will have adequate quality and safety in its design, procurement, and construction, as well as uncertainties that the plant will be able to effectively and safely operate.

### Request for Meeting

We have learned this information with the help of insiders, Freedom of Information Act requests, and intensive research. We respectfully request the opportunity to meet and explain these issues in more detail and provide documentation that we believe will assist you in your review. It is our

belief that the subversion of the Authorization Basis and the Quality Assurance programs, not to mention the intentional suppressing of safety reporting, is well within the NRC's review scope and should be considered, along with any mitigating information that might be provided by DOE or Bechtel.

As I stated at the public meeting, we share a sincere concern with many in the community in the region and in the Tri-Cities, including engineers, scientists and craft workers who work at WTP, for the success of this project in safely dispositioning the millions of gallons of high-level nuclear waste stored at Hanford in unsafe and unstable underground waste tanks.

I hope to hear from you soon.

Sincerely yours,

Tom Carpenter, Executive Director
Hanford Challenge

cc: Bret Leslie, NRC
Alex Murray, NRC
Bob Pierson, NRC
Richard Miller, House Energy and Commerce Committee, Oversight & Investigations
Terry Tyborowski, House Subcommittee on Energy & Water Appropriations